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September 25, 2012

Acton Planning Board
Attn: Roland Bartl
Acton Town Hall
472 Main Street
Acton, MA 01720

Re: Central Street P.C.R.C.
Site Description and
Drainage Calculations

Dear Members of the Board:

I have enclosed drainage calculations along with this site description for the proposed Central Street P.C.R.C. application.

Existing Conditions

The existing parcel, consisting of approximately 11.9 acres, is comprised of mostly wetlands. It contains a raised, level knoll towards the rear of the property approximately 18 feet above the wetlands in elevation. The knoll is underlain with good soils, consisting of sand and gravel, with a percolation rate of less than 2 minutes per inch and groundwater at a depth of over 10 feet.

Proposed Site Improvements

We are proposing two new single family homes to be accessed off of Central Street (adjacent to the cemetery entrance) via a 1,300 foot shared driveway. A stone trench is proposed along both sides of the entire length of the driveway to treat the storm water runoff. Each home will have a Cultec chamber drywell to treat the roof runoff.

The attached drainage calculations provide the pre and post construction peak flow runoff for the 10, 25 and 100 year storm events. Calculations were performed using HydroCAD software, utilizing U.S. Soil Conservation Service hydrology method TR-55. All runoff from the proposed improvements (driveways and roofs) will be fully contained and treated for the 10 and 25 year storm events. The 100 year storm event would almost be fully contained (calculations show only an additional 100 feet of trench would be required). The proposed dwellings and drainage components will not have any negative impacts on the wetlands or abutting properties.

Please call me with any questions you may have regarding these calculations for this application.

Sincerely,

Drew Garvin
R. Wilson & Associates, Inc.